



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D407-667-205
Job Sheet 197727



Part No: D407-667-205

Job Qty: 1 ea

Part Name: Aft Crosstube - High 407



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/15/19

Job Tracking No:

Due Date: 8/16/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: IIN-D206-667 REV D D407-667-245 REV G IPP Rev:D Add Magnobond,Rubber Cushion,Clamps 07-02-19
JLM IPP Rev:E 08-05-22 add comment seq. 6 & QC15 & QC5 DD ver:EC IPP Rev:F 08-06-12 add comment
seq. 24 DD ver:EC IPP Rev:G 08-08-19 revE per dwg DD ver:EC IPP Rev H 09.01.06 ECN 08-562 EC
ver:DD IPP Rev:I 10.04.07 revise route seq. in bom DD ver:JLM IPP Rev J 11.04.26 removed abrasion strip
ecn 11-551 EC ver:DD IPP REV:K 11.10.03 DEOD407-667-245-F-2 DD ver:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Run Hrs Hrs	Workcenter/Supplier	Sign-off
120	CNC Bend Crosstubes	1 pcs	8/16/19	8/16/19	0.50 3.33	Crosstubes - Bend	JW 19-10-23
130	QC 15	1 pcs	8/16/19	8/16/19	0.00 0.00	QC 15 - 12	
						QC 15 - 3	
						QC 15 - 47	
						QC 15 - 49	
						QC 15 - 58	
						QC 15 - 9	
						QC 15 - 68	OCT 24 2019 68
140	Crosstubes - 2 - B4B	1 pcs	8/16/19	8/16/19	0.00 3.47	Crosstubes - 1 - B4B	9-89
						Crosstubes - 2 - B4B	
						Crosstubes - 3 - B4B	
						Crosstubes - 4 - B4B	
150	Crosstubes - 3 - B4B	1 pcs	8/16/19	8/16/19	0.00 0.91	Crosstubes - 1 - B4B	JW 19-10-28
						Crosstubes - 2 - B4B	
						Crosstubes - 3 - B4B	
						Crosstubes - 4 - B4B	
160	QC 7	1 pcs	8/16/19	8/16/19	0.00 0.00	QC 7 - 10	
						QC 7 - 13	
						QC 7 - 14	
						QC 7 - 15	
						QC 7 - 17	
						QC 7 - 18	
						QC 7 - 19	
						QC 7 - 2	
						QC 7 - 28	
						QC 7 - 3	
						QC 7 - 30	
						QC 7 - 34	



Container No: S225693



Part: D407-667-205

Job No: 197727

Serial No/Batch: S225693

Revision: D / G

Inspector:

Exp Date:

Instructions: TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAI

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

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				QC 7 - 36	
				QC 7 - 37	
				QC 7 - 41	
				QC 7 - 47	
				QC 7 - 48	
				QC 7 - 51	
				QC 7 - 58	
				QC 7 - 59	
				QC 7 - 60	
				QC 7 - 9	
				QC 7 - 68	
				QC 7 - 50	
				QC 7 - 67	
				QC 7 - 40	DAS OCT 3 0 2019 40 9-89
				QC 7 - 24	
				QC 7 - 43	
				QC 7 - 61	
				QC 7 - 81	
170	QC 5	1 pcs	8/16/19	0.00 0.00	QC 5 - 10
					QC 5 - 12
					QC 5 - 17
					QC 5 - 18
					QC 5 - 19
					QC 5 - 22
					QC 5 - 24
					QC 5 - 3
					QC 5 - 43
					QC 5 - 49
					QC 5 - 51
					QC 5 - 58
					QC 5 - 68
					QC 5 - 9
					QC 5 - 50
					QC 5 - 30
					QC 5 - 40
					QC 5 - 61
					QC 5 - 81
180	Outsource - 2 - NDT per QSI038	1 pcs	8/16/19		SKY002-VC 2
					2019-10-31
190	Packaging 2-1 - Receive - B4B	1 pcs	8/16/19	0.00 0.00	Packaging 2 - 1 - B4B
					Packaging 2 - 2 - B4B
					Packaging 2 - 3 - B4B
					Packaging 2 - 5 - B4B
					Packaging 2 - 4 - B4B
					Packaging 2 - 6 - B4B
					Packaging 2 - 7 - B4B
					Packaging 2 - 8 - B4B
					Packaging 2 - 9 - B4B
					Packaging 2 - 10 - B4B
					Packaging 2 - 11 - B4B
					Packaging 2 - 12 - B4B
					Packaging 2 - 13 - B4B
					Packaging 2 - 14 - B4B
					Packaging 2 - 15 - B4B
					Packaging 2 - 16 - B4B
					Packaging 2 - 17 - B4B
					Packaging 2 - 18 - B4B
					Packaging 2 - 19 - B4B
					Packaging 2 - 20 - B4B

					Packaging 2 - 21 - B4B	
					Packaging 2 - 22 - B4B	
					Packaging 2 - 23 - B4B	
					Packaging 2 - 24 - B4B	
					Packaging 2 - 25 - B4B	
					Packaging 2 - 26 - B4B	
					Packaging 2 - 27 - B4B	
					Packaging 2 - 28 - B4B	
					Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	
					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	
					Packaging 2 - 34 - B4B	
					Packaging 2 - 35 - B4B	
					Packaging 2 - 36 - B4B	
200 QC 6	1 pcs	8/16/19	0.00 0.00		QC 6 - 9	
					QC 6 - 68	
					QC 6 - 61	
					QC 6 - 40	
					QC 6 - 81	
210 Spray Paint - 2 - B4B	1 pcs	8/16/19	0.00 1.39		Spray Paint - 1 - B4B	
					Spray Paint - 2 - B4B	
					Spray Paint - 3 - B4B	
					Spray Paint - 4 - B4B	
220 QC 14	1 pcs	8/16/19	0.00 0.00		QC 14 - 15	
					QC 14 - 2	
					QC 14 - 34	
					QC 14 - 41	
					QC 14 - 51	
					QC 14 - 58	
					QC 14 - 59	
					QC 14 - 9	
					QC 14 - 68	
					QC 14 - 40	
					QC 14 - 19	
					QC 14 - 43	
					QC 14 - 24	
					QC 14 - 61	
					QC 14 - 81	
230 Crosstubes - 4 - B4B	1 pcs	8/16/19	0.00 3.47		Crosstubes - 1 - B4B	
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	
					Crosstubes - 4 - B4B	
240 QC 5	1 pcs	8/16/19	0.00 0.00		QC 5 - 10	
					QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	
					QC 5 - 68	
					QC 5 - 9	
					QC 5 - 50	

DAS
NOV 01 2019 40
41 NOV 03 2019
9-89

DAS
NOV 04 2019 68
9-89

DAS
41 NOV 08 2019
9-89

DAS
NOV 11 2019 68
9-89

					QC 5 - 30	
					QC 5 - 40	
					QC 5 - 61	
					QC 5 - 81	
250	Packaging 1-1 - Pick Kit - B4B	1 pcs	8/16/19	0.00 0.00	Packaging 1 - 1 - B4B	
					Packaging 1 - 2 - B4B	
					Packaging 1 - 3 - B4B	
					Packaging 1 - 4 - B4B	
					Packaging 1 - 5 - B4B	
					Packaging 1 - 6 - B4B	DAS
					Packaging 1 - 7 - B4B	28
					Packaging 1 - 8 - B4B	9-89
					Packaging 1 - 9 - B4B	
					Packaging 1 - 10 - B4B	
					Packaging 1 - 11 - B4B	
					Packaging 1 - 12 - B4B	
					Packaging 1 - 13 - B4B	
					Packaging 1 - 14 - B4B	
					Packaging 1 - 15 - B4B	
					Packaging 1 - 16 - B4B	
					Packaging 1 - 17 - B4B	
					Packaging 1 - 18 - B4B	
					Packaging 1 - 19 - B4B	
					Packaging 1 - 20 - B4B	
					Packaging 1 - 21 - B4B	
					Packaging 1 - 22 - B4B	
					Packaging 1 - 23 - B4B	
					Packaging 1 - 24 - B4B	
					Packaging 1 - 25 - B4B	
					Packaging 1 - 26 - B4B	
					Packaging 1 - 27 - B4B	
					Packaging 1 - 28 - B4B	
					Packaging 1 - 29 - B4B	
					Packaging 1 - 30 - B4B	
					Packaging 1 - 31 - B4B	
					Packaging 1 - 32 - B4B	
					Packaging 1 - 33 - B4B	
					Packaging 1 - 34 - B4B	
					Packaging 1 - 35 - B4B	
					Packaging 1 - 36	
260	QC 4	1 pcs	8/16/19	0.00 0.00	QC 4 - 28	
					QC 4 - 58	
					QC 4 - 69	
					QC 4 - 9	
					QC 4 - 46	
					QC 4 - 68	
					QC 4 - 72	
					QC 4 - 74	
					QC 4 - 75	
270	Packaging 3-1 - Stock - B4B	1 pcs	8/16/19	0.00 0.00	Packaging 3 - 1 - B4B	
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	

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				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	DAS
				Packaging 3 - 25 - B4B	78 DEC 06 2019
				Packaging 3 - 26 - B4B	9-89
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	DAS
275 DC - 1 - B4B	1 pcs	8/16/19	0.00 0.00	DC - 1 - B4B	21 DEC 06 2019
				DC - 2 - B4B	21
280 QC21-FG	1 Ea	8/16/19	0.00 0.00	QC21	21 DEC 06 2019
Part Op 120 - (CNC Delta 100 Bender) 1-Bend tube as per Dwg D407-667-245 using CNC bender program 407 Aft and Folio 21 Descriptions: 130 - (QC15- Crosstube Dimensional Check) 140 - (Crosstubes) ***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: ***** 1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D407-667-245. Drill all (3) top holes. Holes facing inboard. Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D407-667-245 2- Drill fwd rivet holes using drill Jig DT8787 fwd as per Dwg D407-667-245. Note: FWD side has 3X top holes facing inboard. 3- C'sink holes as per dwg D407-667-245. Allow rivet to sit below surface to compensate for paint. 4- Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins. Drill ONLY 2 top holes ONLY plug most bottom hole to prevent accidental drilling. Drill holes and ream using drill Jig DT8583 & DT8584 as per Dwg D407-667-245. Drill only the top (2) holes. Drill & ream the top (2) holes to finish size using drill Jig DT8583 & DT8584 as per Dwg D407-667-245 5-Drill aft rivet holes using drill Jig DT8787 aft as per Dwg D407-667-245. Drill only the top (2) holes. 6- C'sink holes as per dwg D407-667-245. Allow rivet to sit below surface to compensate for paint. 8-*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***Debur & Inspect for surface damage. Repair damage within limits as per Dwg D407-667-245 150 - (Crosstubes Chemical Conversion) ***IMMEDIATELY AFTER GRINDING*** 160 - (QC7-Inspect Chemical Conversion Coat) 170 - (QC5- Inspect part completeness to step on W/O) 180 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 0380 190 - (Receive & Inspect for Damage & Mat'l Certs) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** 200 - (QC6- All purchased or subcontracted products) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** 210 - (Spray Paint / NDT Room) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** 1-Prime inside and outside crosstube as per DEO D407-667-245 and QSI 005 4.2 ***Mask underside of crosstube as shown*** 3- Apply clear coat as per dwg Clear Coat Batch: <u>Paint 123125</u> 220 - (QC14- Inspect Spray Paint) Then, Wrap in plastic bag to protect from scratches 230 - (Crosstubes) 1- Install chafing shield as per D407-667-245 using DT10096 to establish 8.90 dimension. Top holes should be facing up. *****Ensure chaffing is to be position "overlap" AFT***** A/R Proseal 890 Batch: <u>5227888</u> EXP: <u>6/20</u> 2- Lightly scuff the bonded area using a 320 grit sand paper and clean the area with 41058 wash 'n' wipe 3-Install support with Scotch-Weld DP460 and install clamps as per Dwg D407-667-245 using installation jig DT9025. Torque clamps as per dwg A/R Scotch-Weld DP460 Batch: <u>5152077</u> EXP: <u>8/20</u> ***LET CURE FOR 24 HOURS*** CURE TIME: START: <u>19-11-8</u> FINISH: <u>19-11-9</u> 4-Install nut plates as per Dwg D407-667-245. Touch-up rivet heads with Imron paint. 240 - (QC5- Inspect part completeness to step on W/O) ***RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURE FOR 24HOURS AS PER DWG DEO*** 250 - (Pick Kit) 260 - (QC4- 100% Inspect kits for completeness) 270 - (Identify as per dwg & Stock Location: _____) Identify and in kanban rack 275 - (Document Control) Photocopy bluefile and create labels as per PPP D407-667-205 CHG009					

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Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D407-667-205TRN	Crosstube Turning Detail	1 pcs (1 ea)	120-CNC Bend Crosstubes	5197051
D2873-043	Nut Plate Assembly	2 pcs (2 ea)	230-Crosstubes - 4 - B4B	
D2873-045	Nut Plate Assembly	2 pcs (2 ea)	230-Crosstubes - 4 - B4B	
D2894-1	2.75 Support	1 pcs (1 ea)	230-Crosstubes - 4 - B4B	
D3190-1	Chaffing Shield	2 pcs (2 ea)	230-Crosstubes - 4 - B4B	
D3595-075-430	Rubber Cushion - 0.75" Wide X 4.30" Long	2 pcs (2 ea)	230-Crosstubes - 4 - B4B	
MS20601-AD4W8	Rivet	14 Ea (14 ea)	230-Crosstubes - 4 - B4B	
MS21920-22	Clamp	4 Ea (4 ea)	230-Crosstubes - 4 - B4B	
MS21920-25	Clamp	2 Ea (2 ea)	230-Crosstubes - 4 - B4B	
AN5-10A	Bolt	10 Ea (10 ea)	250-Packaging 1-1 - Pick Kit - B4B	5098022
AN5-32A	Bolt	4 Ea (4 ea)	250-Packaging 1-1 - Pick Kit - B4B	5119858
AN5-34A	Bolt	4 Ea (4 ea)	250-Packaging 1-1 - Pick Kit - B4B	5166955
MS21042L5	Nut	4 Ea (4 ea)	250-Packaging 1-1 - Pick Kit - B4B	5093592
NAS1149D0563J	Washer	18 Ea (18 ea)	250-Packaging 1-1 - Pick Kit - B4B	5174288

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
120-CNC Bend Crosstubes	D407-667-205TRN	1	6	0
230-Crosstubes - 4 - B4B	D2873-043	② 5200398	39	0
	D2873-045	② 5186342	32	0
	D2894-1	① 5171563	11	0
	D3190-1	② 137928	45	0
	D3595-075-430	② 5074227	48	0
	MS20601-AD4W8	④ 5155662	170	0
	MS21920-22	④ 5176560	75	0
	MS21920-25	② 5184960	78	0
250-Packaging 1-1 - Pick Kit - B4B	AN5-10A	10	82	0
	AN5-32A	4	277	0
	AN5-34A	4	41	0
	MS21042L5	4	401	0
	NAS1149D0563J	18	2,158	0

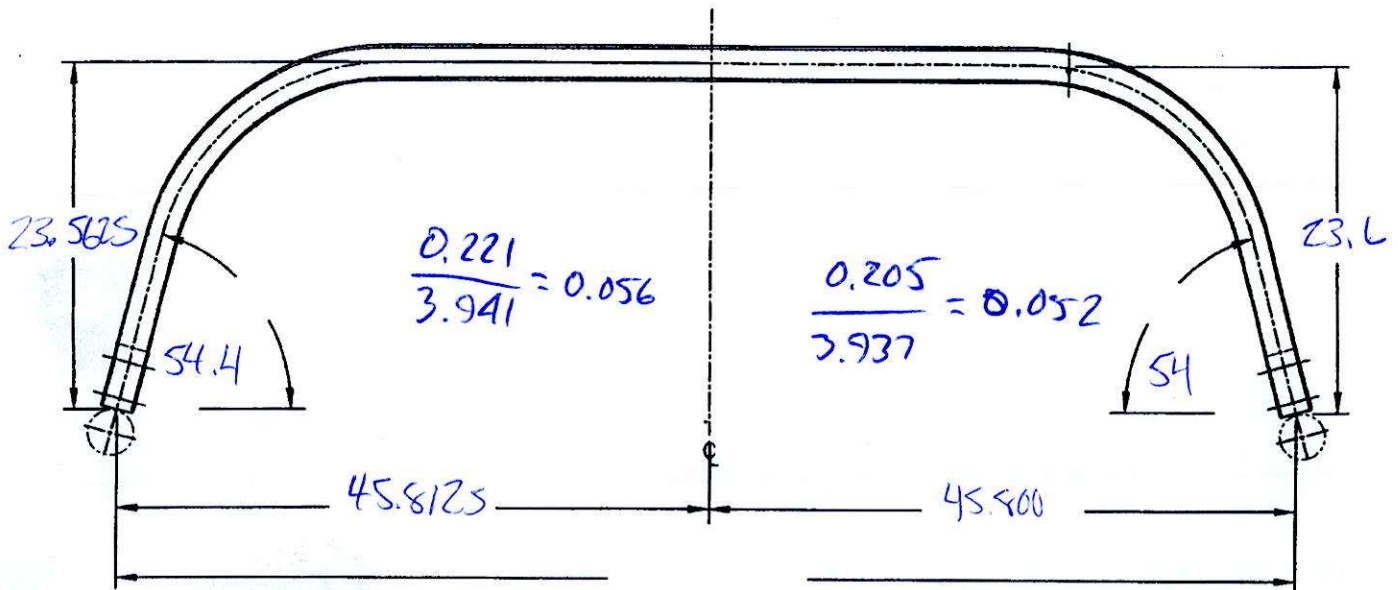
Part Specifications

Specifications could not be found.

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DART AEROSPACE LTD		Work Order: 197727
Description: Crosstube High Aft (407)		Part Number: D407-667-205
Inspection Dwg: D407-667-245 Rev: G		Page 1 of 1

Required Dimension	Min	Max
Height	23.39	23.65
1/2 Span	45.79	46.05
Angle	54	56
Total Span	91.58	92.100
Bending Passes	6	--
Crushing	--	6%



1.860
2.081

	Side A	Side B
Bending Passes		
Crushing	5.6%	5.2%
Comments		

1.866
2.071

QC15 Inspection	DAS 68
Date	0.99 OCT 24 2019

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	09.06.22	Dwg Rev updated	KJ	
C	11.08.22	Dimensions updated	KJ	
D	11.09.30	Dimensions updated	KJ	
E	12.04.16	Added bending, crushing dimensions	KJ	
F	15.05.14	Dwg Rev updated	KJ	

Item	QTY	PART NUMBER	DESCRIPTION
	X	D407-667-245	CROSSTUBE ASSEMBLY (407 HIGH AFT)
1	1	D6011-115	CROSSTUBE
2	2	D2873-043	NUT PLATE
3	2	D2873-045	NUT PLATE
4	1	D2894-1	SUPPORT
5	2	D3190-1	CHAFING SHIELD
6	2	D3595-063-430	RUBBER CUSHION
7	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
8	4	MS21920-22	CLAMP
9	2	MS21920-25	CLAMP (OR MS21920-24)
10	AR	SCOTCH-WELD DP460	EPOXY ADHESIVE, 3M SCOTCH-WELD
11	AR	PROSEAL 890	SEALANT

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6011-115
FINISHED LENGTH = 112.91±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT CROSSTUBE PER DART QSI 005 4.2
FOR HATCHED AREAS (ZN A8-2), MASK AS REQUIRED
TO APPLY PRIME AND APPLY CLEAR COAT ONLY
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D407-667-245" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 27.7 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 6 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2894-1 CENTER SUPPORT USING A 0.04" TO 0.07" THICK LAYER OF SCOTCH-WELD DP460 PER QSI 015. LET CURE FOR 24 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-25 CLAMPS WITH D3595-063-430 RUBBER CUSHIONS TO SECURE D2894-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE CROSSTUBE SUPPORT.
NOTE: MS21920-24 CLAMPS CAN BE USED TO ACCOMMODATE VARYING DIAMETERS. ENSURE THERE IS A MINIMUM OF 1.5 THREADS IN SAFETY ON THE NUTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) APPLY A THIN COAT OF PROSEAL 890 ON INSIDE CONCAVE SURFACE OF D3190-1 CHAFING SHIELDS AND LET CURE PER MANUFACTURER'S INSTRUCTIONS. INSTALL PROSEAL D3190-1 CHAFING SHIELDS ONTO CROSSTUBE BY APPLYING A THIN COAT OF PROSEAL 890 ONTO CROSSTUBE. BE SURE TO ELIMINATE ANY AIR GAPS.
- 16) INSTALL D3190-1 CHAFING SHIELDS SO THAT OVERLAP IS 50 TO 70 DEGREES FROM BOTTOM OF CROSSTUBE OPPOSITE D2894-1 SUPPORT.
- 17) TORQUE CLAMPS 80 TO 100 IN-LB. TORQUE CLAMPS ON D3190-1 CHAFING SHIELD 40 TO 50 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURED FOR 24 HOURS.

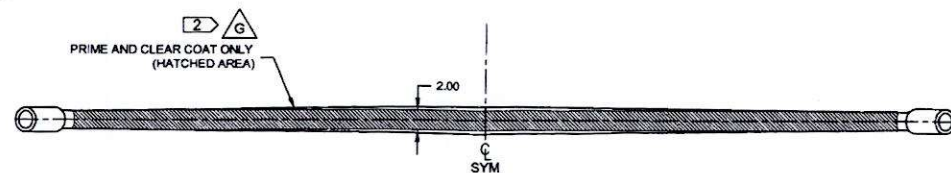
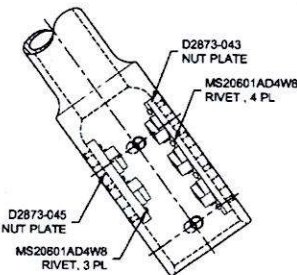
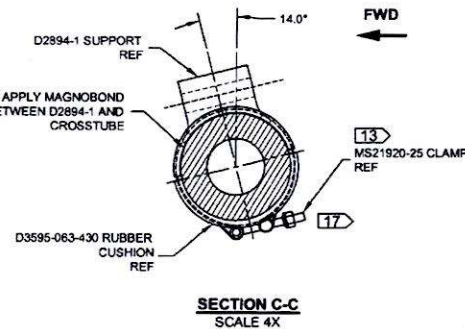
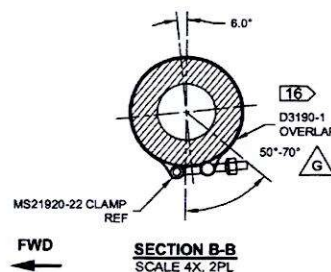
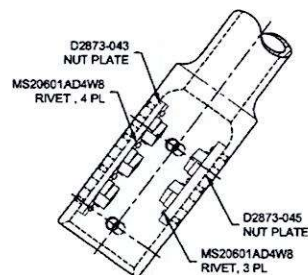
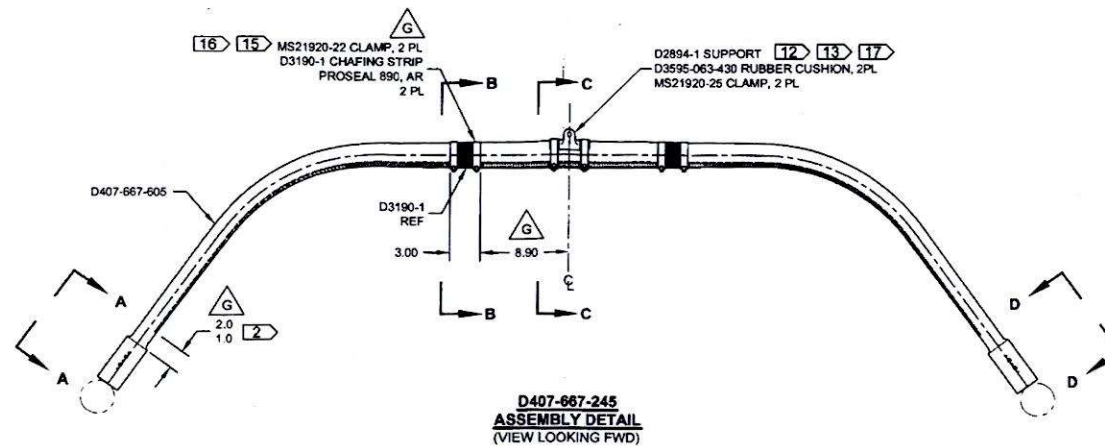
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2015 APR 09

9P ECU 15-557

G	INCORP. DEO's D407-667-245-F1/F2 (ZN D8-1, A8-1, D5-2, B8-2, C8-2); 8.90 WAS 8.53 (ZN D5-2); TORQUE REDUCED FOR CHAFING SHIELD (ZN A8-1); FINISH REVISED TO ALLOW MANUFAC. FLEXIBILITY (ZN C8-1)	RF	15.03.20
F	REFORMAT NOTES TO NEW STANDARDS (ZN B8-1); RELOCATED FLAG # 6 (ZN A8-3) PER NCR 210; REMOVED REF. & ADD TOLERANCES (ZN C6-3, C4-3 & D2-3)	RF	08.11.06
E	8.02 AND 8.53 WERE 8.40 AND 8.90 (ZN D5-2); REORGANIZED VIEWS AND REFORMATED DRAWING TO CURRENT STANDARDS. REASONS: CLAMPS MOVED 0.375 TOWARD CL TO ELIMINATE INTERFERENCE WITH AIRCRAFT MOUNTS. REFERENCE: PAR#08-21 AND ECU#1225	MB	08.07.24
D	ADD VIEW FOR OEM SKID HOLES, ROTATE ORIENTATION OF CLAMPS SECTION F-F, REMOVE -85' ABRASION STRIP, ADD MAGNABOND 6396, ADD CUSHION	PH	07.02.07
C	ADD HOLES AND NUT PLATES FOR COMPATIBILITY WITH BHT/AA SKIDTUBES	PH	05.07.26
B	ADD CHAFING SHIELD	CP	03.05.21
A	NEW ISSUE	CP	02.05.13
REV.	DESCRIPTION	BY	DATE
DESIGN	9P		
DRAWN	RF		
CHECKED	9P		
MFG. APPR.	9P		
APPROVED	9P		
DE APPR.	9P		
DATE	15.03.20		

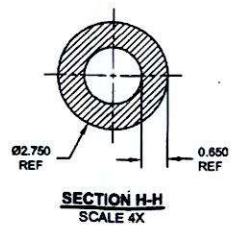
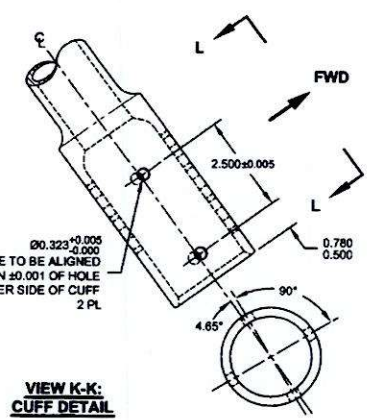
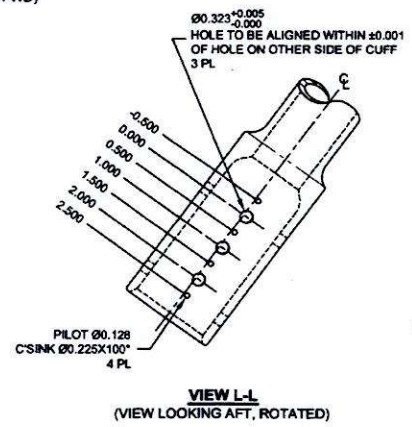
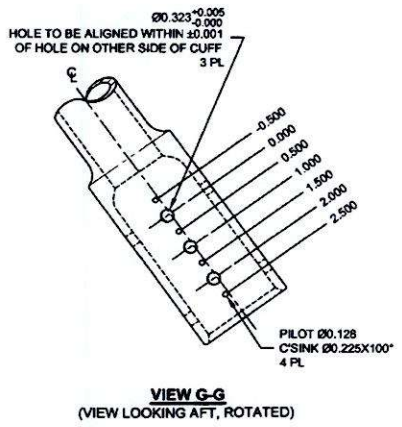
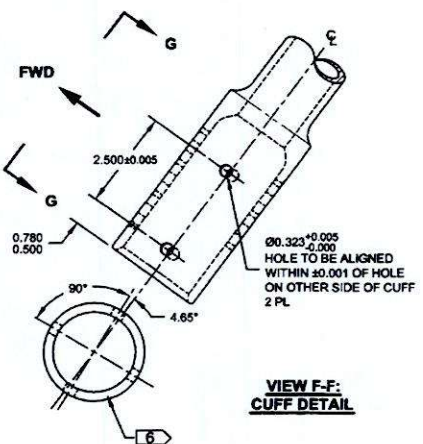
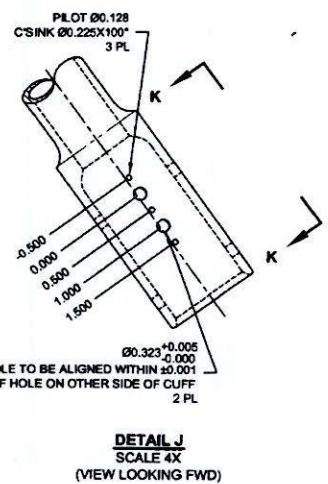
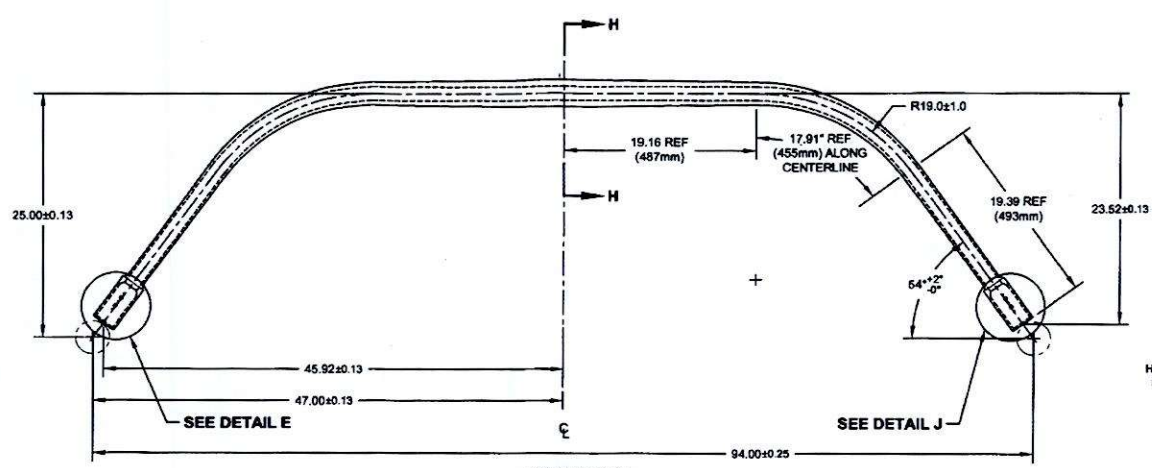
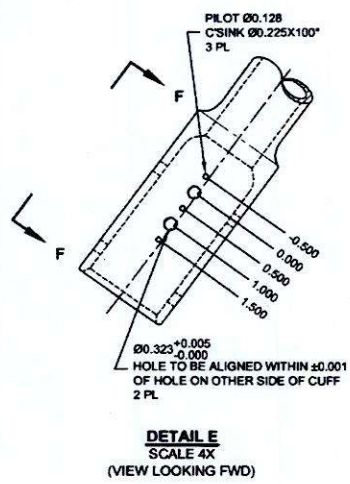
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D407-667-245	REV. G SHEET 1 OF 4
TITLE CROSSTUBE ASS'Y (407 HIGH AFT)	SCALE NTS
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RELEASED
2015 APR 09

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. G
MFG. APPR.	RF	D407-667-245	SHEET 2 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	CROSSTUBE ASS'Y (407 HIGH AFT)	NTS
DATE	15.03.20	COPYRIGHT © 2002 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

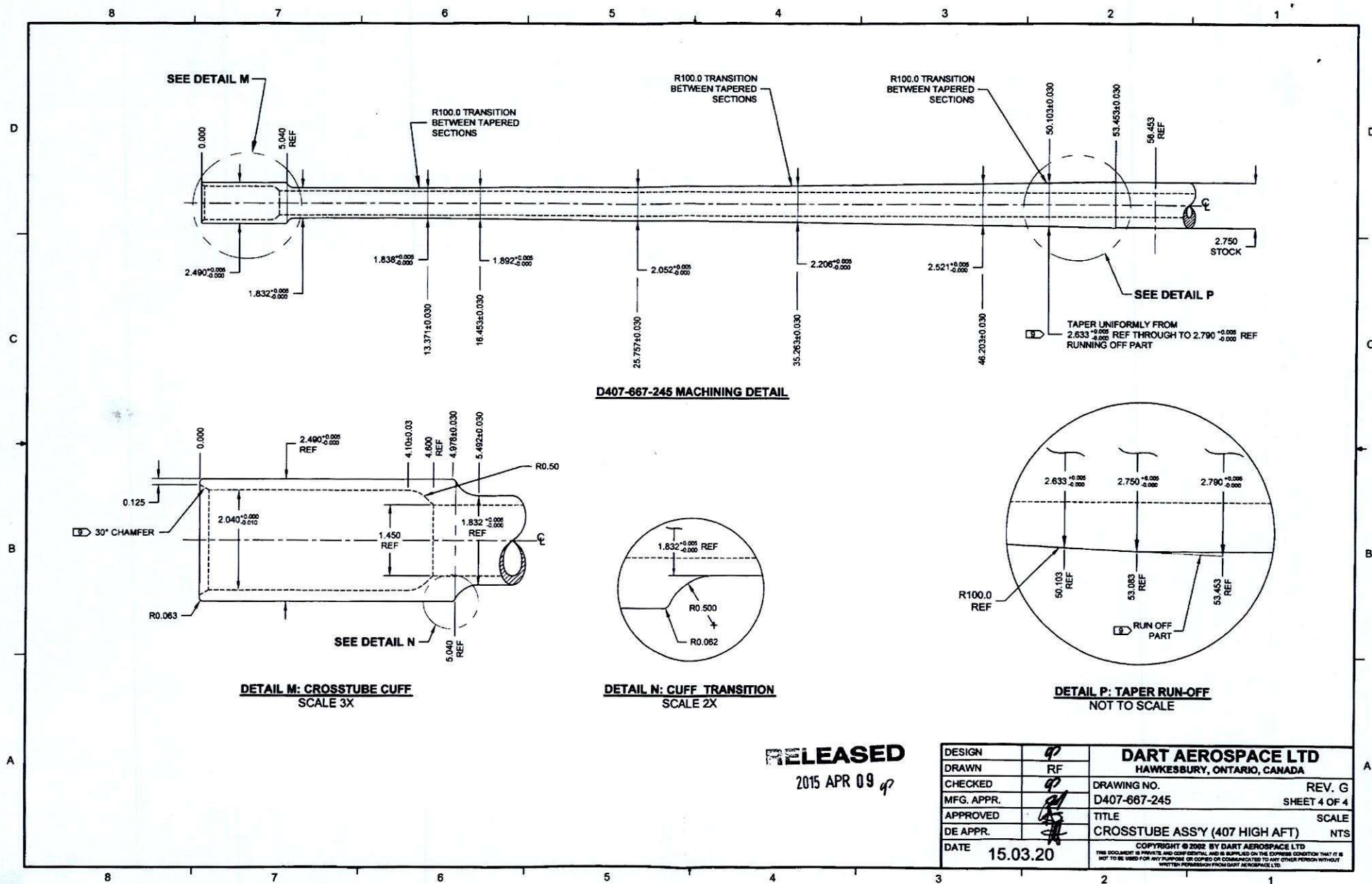
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RELEASED
2015 APR 09

DESIGN	40	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	41	DRAWING NO. REV. G
MFG. APPR.	41	D407-867-245 SHEET 3 OF 4
APPROVED	41	TITLE SCALE
DE APPR.	41	CROSSTUBE ASSY (407 HIGH AFT) NTS
DATE	15.03.20	COPYRIGHT © 2002 BY DART AEROSPACE LTD

8 7 6 5 4 3 2 1





Container No: S225693



Part: D407-667-205

Job No: 197727

Serial No/Batch: S225693

Revision: D / G

Inspector:

Exp Date:

Instructions: TC STC SH01-5 Issue 3, FAA STC SR01304N

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 832-5200
Email: sales@dartaero.com
www.dartaerospace.com



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER POHB044920



Supplier: SKY002-VC
SkyService
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

Attention: Jenne, Heather

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB044920

PO Date: 10/29/19

Due Date: 10/31/19

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	200370	D3011- 1	D3011 D	Rappel Slide Bar : Various STC's (Outsource process - NDT per QSI038 4.1)1- LPI AS PER ASTM 1417 LEVEL 2 AS PER DWG D3011 2- Certificate of conformity is required	Firmed x4	-	10/31/19	4 pcs	0 pcs	4 pcs	\$70.00/pcs	\$280.00
2	197280	D407- 667- 205	IIN-D206-667 / D407-667-245 D / G	Aft Crosstube - High 407 : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32- OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 0380	Firmed x1	-	10/31/19	1 pcs	0 pcs	1 pcs	\$152.50/pcs	\$152.50
	197279				Firmed x1		10/31/19	1 pcs	0 pcs	1 pcs	\$152.50/pcs	\$152.50
	197727				Firmed x1		10/31/19	1 pcs	0 pcs	1 pcs	\$152.50/pcs	\$152.50
	197728				Firmed x1		10/31/19	1 pcs	0 pcs	1 pcs	\$152.50/pcs	\$152.50
Sub Total:								4	0	4		\$610.00

OCT 31 2019

OCT 31 2019

OCT 31 2019

OCT 31 2019

OCT 31 2019

DAS
40
9-89



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER POHB044920



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
200903		D206-667-103	DSI9565, DSI9628, D206-667-143	Fwd Crosstube - High 206L / L1 / L3 / L4 : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource process - NDT per QSI038 4.1 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***	Firmed	-	10/31/19	1 pcs	0 pcs	1 pcs	\$152.50/pcs	\$152.50
200904					Firmed	-	10/31/19	1 pcs	0 pcs	1 pcs	\$152.50/pcs	\$152.50
Sub Total:								2	0	2		\$305.00

Grand Total: \$1,195.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 10/31/19 2:47 PM Dart.Guerin.Kimberley

**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA-AMO 385

WO #: MWO42375	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: POHB044920
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT (LIQUID PENETRANT CRACK TEST) ON THE FOLLOWING 6 CROSSTUBES and 4 RAPPEL SLIDE BARS:

P/N: D3011-1 RAPPEL SLIDE BARS JOB SHEET# 200370 (4 ea)

P/N: D407-667-205 AFT CROSSTUBE-HIGH 407

1- JOB SHEET# 197280 ^{DAS} 2- JOB SHEET# 197279

3- JOB SHEET# 197727 ⁴⁰ 4- JOB SHEET# 197728
₉₋₈₉

P/N: D206-667-103 FWD CROSSTUBE-HIGH 206L/L1/L3/L4

5- JOB SHEET# 200903 6- JOB SHEET# 200904

Action Taken:	Date:	Initial/Stamp:
LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE AS PER ASTM1417M-16		
-NO CRACK FOUND.	31 oct 2019	
PEN.(ZL37 , MPO21721) DEV.(SKD-S2, MPO11715), CLEANER(SKC-S, MPO MPO19368)		

Miscellaneous AD Review Performed: ☐ No applicable AD's noted ☐ Refer to action taken for applicable AD's						
Description	Location	P/N	Qty	Batch	S/N Off	S/N On

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature: 	ACA/SCA Stamp	Date:
Name: CHRISTIAN BRIEN		31 oct 2019